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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,475

09/28/2006

Yoshiharu Ohta

2691-000058/US

9499

30593

7590

10/29/2008

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EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

10/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,475	Applicant(s) OHTA ET AL.	
	Examiner Michael A. Marcheschi	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9</u> . | 6) <input type="checkbox"/> Other: _____ |

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/20/08 has been entered.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 7 and 9 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The new matter added to the claims, literally in claim 1, is the limitation about the “coarse particles” because (1) the examiner cannot find literal or clear support for “approximately 0.5” nor can support be found for “less than 140,000/0.5 ml”. It is to be noted

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that 140,000 is not literally defined nor is any and all values less than 140,000, as the claim now requires, supported.

Claims 1, 2, 7 and 9 are rejected under 35 U.S.C. 103(a) as obvious over Tamai et al. (144) in view of Kaufman et al. (382).

Tamai et al. teach in the abstract, column 3, lines 12-45, column 5, line 64-column 6, line 27, column 8, lines 33-35 and the claims, a polishing composition comprising 10+ weight percent fumed silica. The fumed silica has a bulk density of at least 70 g/l. The reference also teaches a method of making the fumed silica polishing composition (acidic substance with basic substance). It is to be noted that column 3, lines 28-31 teaches that in the polishing composition, the silica has a size such that not more than 500,000 per 0.1 ml is larger than 0.5 micron.

The primary reference teaches all of the claimed limitations with the exception of the claimed additives, however, it is the examiners position that the skilled artisan would have appreciated and thus found it obvious to add any one of the claimed additives to the composition according to the primary reference because these additives are conventionally known to be added to polishing compositions depending on the polishing characteristics sought and this aspect would have been well within the scope of the skilled artisan with predicable results.

With respect to the process limitations (i.e., mixing an alkali aqueous solution with an acidic solution, as is apparent from the claims), the reference clearly teaches these, however, assuming arguendo, applicants use process limitations to define the product and "product-by-process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964.

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As outlined above, column 3, lines 28-31 clearly teaches the newly added limitation regarding the size.

Assuming arguendo about the limitations “alkali solution” and “acidic solution”, it is to be noted that the primary reference uses both an acid and a base in the composition, and although not designated as both being “solutions”, this is immaterial because the composition will still contain an acid, base and water, irrespective of the acid and base being initially in solution or not and thus burden is shifted to applicants to establish why the reference fails to reads on the above limitations nor the final polishing composition.

Claims 1, 2, 7 and 9 are rejected under 35 U.S.C. 103(a) as obvious over Kaufman et al. (382) in view of Tamai et al. (144).

Kaufman et al. teach in the claims, a polishing composition comprising 15 weight percent fumed silica, an oxidizer, a complexing agent (acidic component) and other components (i.e. ammonium hydroxide (basic component)).

This reference is silent as to the bulk density of the fumed silica and the processing conditions used to make the slurry.

With respect to the bulk density, this is obvious motivated by the fact that the secondary reference teaches in column 6, lines 7-23 beneficial reasons to make a polishing composition by using fumed silica with the claimed bulk density.

With respect to the added limitation of the number of coarse particles, it is to be noted that the primary reference teaches in section 0039 that the size of the abrasive is less than 0.4

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microns and thus since all of the particles are less than the above size, it can be seen that no particles have a size of 0.5 microns are present, thus reading on the claimed limitation.

With respect to the process limitations (i.e., mixing an alkali aqueous solution with an acidic solution, as is apparent from the claims, the reference clearly teaches these, however, assuming *arguendo*, applicants use process limitations to define the product and "product-by-process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964.

Assuming *arguendo* about the limitations "alkali solution" and "acidic solution", it is to be noted that the primary reference uses both an acid and a base in the composition, and although not designated as both being "solutions", this is immaterial because the composition will still contain an acid, base and water, irrespective of the acid and base being initially in solution or not and thus burden is shifted to applicants to establish why the reference fails to reads on the above limitations nor the final polishing composition.

Claims 1, 2, 7 and 9 are rejected under 35 U.S.C. 103(a) as obvious over Pasqualoni et al. (770) in view of Tamai et al. (144).

Pasqualoni et al. teach in sections 0013, 0018, 0029, 0020, 0034 and 0036-0039, a polishing composition comprising 10 weight percent fumed silica (i.e. is to be noted that this is a preferred amount), an oxidizer, an acidic component, a basic component (i.e. ammonium hydroxide) and other components. The size of the coarse particles is defined in section 0013.

This reference is silent as to the bulk density of the fumed silica and the processing conditions used to make the slurry.

With respect to the bulk density, this is obvious motivated by the fact that the secondary reference teaches in column 6, lines 7-23 beneficial reasons to make a polishing composition by using fumed silica with the claimed bulk density.

With respect to the added limitation of the number of coarse particles, it is to be noted that the primary reference teaches in section 0013 size criteria for coarse particles which reads on the claimed size because overlapping ranges are held to be obvious.

With respect to the process limitations (i.e., mixing an alkali aqueous solution with an acidic solution, as is apparent from the claims, the reference clearly teaches these, however, assuming *arguendo*, applicants use process limitations to define the product and "product-by-process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964.

Assuming *arguendo* about the limitations "alkali solution" and "acidic solution", it is to be noted that the primary reference uses both an acid and a base in the composition, and although not designated as both being "solutions", this is immaterial because the composition will still contain an acid, base and water, irrespective of the acid and base being initially in solution or not and thus burden is shifted to applicants to establish why the reference fails to reads on the above limitations nor the final polishing composition

The following rejection is an alternative to the ones defined above

Claims 1, 2, 7 and 9 are rejected under 35 U.S.C. 103(a) as obvious over either (1) Tamai et al. (144) in view of Kaufman et al. (382) or (2) Kaufman et al. (382) in view of Tamai et al. (144) both in view of Pasqualoni et al.

Tamai et al. (144) in view of Kaufman et al. (382) and Pasqualoni et al..

Tamai et al. teach all of the claimed limitations with the exception of (1) the claimed additives and (2) the coarse particles limitation. However, with respect to (1), it is the examiners position that the skilled artisan would have appreciated and thus found it obvious to add any one of the claimed additives to the composition according to the primary reference because these additives are conventionally known to be added to polishing compositions depending on the polishing characteristics sought, as clearly disclosed by both of the secondary references and this aspect would have been well within the scope of the skilled artisan with predicable results.

With respect to (2), it is the examiners position that one skilled in the art would have appreciated and thus it obvious to manufacture a polishing composition having coarse particles within the claimed range because Pasqualoni et al. teaches in section 0013 beneficial reasons for eliminating such coarse particles and the beneficial reasons provide the clear motivation for the above combination. It is to be noted that this reference teaching in section 0013 reads on the claimed size because overlapping ranges are held to be obvious.

With respect to the process limitations (i.e., mixing an alkali aqueous solution with an acidic solution, as is apparent from the claims, the reference clearly teaches these, however, assuming *arguendo*, applicants use process limitations to define the product and "product-by-process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964.

Assuming *arguendo* about the limitations "alkali solution" and "acidic solution", it is to be noted that the primary reference uses both an acid and a base in the composition, and although not designated as both being "solutions", this is immaterial because the composition will still

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contain an acid, base and water, irrespective of the acid and base being initially in solution or not and thus burden is shifted to applicants to establish why the reference fails to reads on the above limitations nor the final polishing composition.

Kaufman et al. (382) in view of Tamai et al. (144) and Pasqualoni et al.

Kaufman et al. teach in the claims, a polishing composition comprising 15 weight percent fumed silica, an oxidizer, a complexing agent (acidic component) and other components (i.e. ammonium hydroxide (basic component).

This reference is silent as to (1) the bulk density of the fumed silica and the processing conditions used to make the slurry and (2) the coarse particles limitation.

With respect to (1), this is obvious motivated by the fact that Tamai et al. teaches in column 6, lines 7-23 beneficial reasons to make a polishing composition by using fumed silica with the claimed bulk density.

With respect to (2), it is the examiners position that one skilled in the art would have appreciated and thus it obvious to manufacture a polishing composition having coarse particles within the claimed range because Pasqualoni et al. teaches in section 0013 beneficial reasons for eliminating such coarse particles and the beneficial reasons provide the clear motivation for the above combination. It is to be noted that this reference teaching in section 0013 reads on the claimed size because overlapping ranges are held to be obvious.

With respect to the process limitations (i.e., mixing an alkali aqueous solution with an acidic solution, as is apparent from the claims, the reference clearly teaches these, however, assuming arguendo, applicants use process limitations to define the product and "product-by-

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process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964.

Assuming arguendo about the limitations "alkali solution" and "acidic solution", it is to be noted that the primary reference uses both an acid and a base in the composition, and although not designated as both being "solutions", this is immaterial because the composition will still contain an acid, base and water, irrespective of the acid and base being initially in solution or not and thus burden is shifted to applicants to establish why the reference fails to reads on the above limitations nor the final polishing composition.

Applicant's arguments filed 10/20/08 have been fully considered but they are not persuasive.

Applicant argue that the previously applied reference fails to teach the added limitation regarding the "coarse particles". This is not persuasive because (1) as outlined above, column 3, lines 28-31 of Tamai et al. clearly teaches the newly added limitation regarding the size and (2) as outlined above, Kaufman et al. teaches in section 0039 that the size of the abrasive is less than 0.4 microns and thus since all of the particles are less than the above size, it can be seen that no particles have a size of 0.5 microns are present, thus reading on the claimed limitation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorenzo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael A Marcheschi/
Primary Examiner, Art Unit 1793